



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/260,837	03/02/1999	DARYL LAWTON	187831	6978

7590 12/16/2003

LEYDIG VOIT & MAYER  
TWO PRUDENTIAL PLAZA SUITE 4900  
180 NORTH STETSON  
CHICAGO, IL 606016780

EXAMINER
----------

SINGH, RACHNA

ART UNIT	PAPER NUMBER
----------	--------------

2176

DATE MAILED: 12/16/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/260,837

Applicant(s)

LAWTON ET AL.

Examiner

Rachna Singh

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This action is responsive to communications: Request for Reconsideration  
8/21/03
2. Claims 1-30 are pending in the case. Claims 1, 8, 14, 18, 22, and 24 are independent claims.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 7-13, 14, 18, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over W3C, "Document Object Model Level 1 Specification", 1998 in view of GroupLab of the University of Calgary, *Awareness Through Fisheye Views in Relaxed-WYSIWIS Groupware*, 1996.

In reference to claim 1, W3C's DOM Level 1 Specification discloses a document object model (hereinafter DOM) which represents the standard set of objects representing XML documents and how these objects can be combined in addition to an interface for accessing and manipulating them the objects. It can be used as an interface to data structures and APIs. See abstract. Compare to ***"a document model, representative of the document, having a plurality of data structures***

***representative of components within the document, wherein the document is an XML document”.***

W3C does not disclose registering a thumbnail image registered with the document model; however, GroupLab of the University of Calgary discloses a system in which a document is viewed using two separate windows. The two views are a detailed view and a radar overview (analogous to a thumbnail) of a document. See figure 1.

GroupLab teaches a fisheye text viewer in which a user can get a sense of the document's global structure. The user views the detail by clicking on a line of text. The user can view the local detail by selecting focal point within the document. Compare to ***“selected coordinates within the thumbnail image that are mapped to a data structure selected from the plurality of data structures”.***

GroupLab does not teach the thumbnail using XML tags of an XML document; however, since XML applications provide for the ability to link to a portion of a document from a document model (as taught by W3C) and it was well known at the time of the invention to provide reduced images (thumbnails) from which a user could select coordinates linking to the larger document, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine W3C's DOM with GroupLab's thumbnail registration with a document since mapping coordinates to a data structure and thumbnails provide a means to link to another document. Both thumbnails and DOM provide users with the ability to communicate with another document. See pages 1-2 of W3C's "What is the Document Object Model".

Claim 7 further cites, ***“wherein the components are individually addressable.”*** In a structured document, the components and attributes are individually addressable. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to have components in the documents be individually addressable and incorporate that in the registering of a thumbnail with the document model.

In reference to claim 8, W3C teaches representing a document with a DOM that comprises hierarchically related model components that correspond to the hierarchically related document components. Specifically the DOM has a logical structure of a tree. Please see pages 1-2 of W3C’s “What is the Document Object Model”. Compare to ***“the document model comprises hierarchically related model components, and whereby hierarchically related document components are associated with corresponding hierarchically related model components”***. W3C does not teach creating a bitmap image representative of the document and identifying coordinates within the full-bitmap image to components selected from the document model; however, as discussed above in reference to claim 1, GroupLab does. GroupLab of the University of Calgary discloses a system in which a document is viewed using two separate windows. The two views are a detailed view and a radar overview (analogous to a thumbnail) of a document. See figure 1. GroupLab teaches a fisheye text viewer in which a user can get a sense of the document’s global structure. The user views the detail by clicking on a line of text. The user can view the local detail by selecting focal point within the document.

GroupLab does not teach the hierarchy of document components; however, since DOM represents the hierarchy of XML data that are linked to a portion of a document from a document model (as taught by W3C) and it was well known at the time of the invention to provide reduced images (thumbnails) from which a user could select coordinates linking to the larger document, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine W3C's DOM hierarchy with GroupLab's thumbnail registration with a document since mapping coordinates to a data structure and thumbnails provide a means to link to another document. Both thumbnails and DOM provide users with the ability to communicate with another document. See pages 1-2 of W3C's "What is the Document Object Model".

In reference to claim 9, W3C teaches that the components of the document include textual blocks, pages, and words. See general disclosure.

In reference to claim 10, W3C teaches that the document can be an XML document.

Claim 11 cites, ***"the step of mapping further comprises the step of providing an address link to a computer storage location between the coordinates and each component selected from the document model mapped to the coordinates."***

GroupLab discloses a method in which coordinates describe certain portions of the document by selecting focal point. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a computer storage in linking the components with the coordinates since it registers the document model to the layout of the document in the thumbnail image.

Claim 12 further cites, ***“the step of identifying further comprises the step of identifying coordinates that define a unit of text.”*** GroupLab discloses a system in which a focal point defines an area of text. See page 7. It would have been obvious to one of ordinary skill in the art to identify the coordinates that define the area of text in order to match it to a thumbnail image.

In reference to claim 13, it is well known in the art to sub-sample an image when reducing its size. It would have been obvious to one of ordinary skill in the art at the time the invention was made to sub-sample a full sized image to form a thumbnail image since reducing the size of an image requires it.

Claim 22 is rejected under the same rationale as claim 8 above.

In reference to claim 23, W3C teaches that the identified component can be that of text. Furthermore, GroupLab teaches identifying the coordinates that define text.

In reference to claim 14, W3C teaches representing a document with a DOM that comprises hierarchically related model components that correspond to the hierarchically related document components. Specifically the DOM has a logical structure of a tree. Please see pages 1-2 of W3C’s “What is the Document Object Model”.

W3C does not teach thumbnail representation of an image or sensing the position of a cursor over the image and determining the coordinates within the thumbnail image corresponding to the sensed cursor position; however, GroupLab does. As discussed in claims 1 and 8, GroupLab of the University of Calgary discloses a system in which a document is viewed using two separate windows. The two views are a detailed view and a radar overview (analogous to a thumbnail) of a document. See

figure 1. GroupLab teaches a fisheye text viewer in which a user can get a sense of the document's global structure. The user views the detail by clicking on a line of text. The user can view the local detail by selecting focal point within the document. GroupLab of the University of Calgary further discloses a method in which the user selects a focal point in the text viewer via a mouse in order to view the data in the document. See page 7.

GroupLab does not teach the hierarchy of document components; however, since DOM represents the hierarchy of XML data that are linked to a portion of a document from a document model (as taught by W3C) and it was well known at the time of the invention to provide reduced images (thumbnails) from which a user could select coordinates linking to the larger document, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine W3C's DOM hierarchy with GroupLab's thumbnail registration with a document since mapping coordinates to a data structure and thumbnails provide a means to link to another document. Both thumbnails and DOM provide users with the ability to communicate with another document. See pages 1-2 of W3C's "What is the Document Object Model".

Claim 18 is rejected under the same rationale as claim 14 above.

5. Claims 6, 15-17, 19-21, 24-26, and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over W3C, "Document Object Model Level 1 Specification", 1998 in view of GroupLab of the University of Calgary, *Awareness Through Fisheye Views in Relaxed-WYSIWIS Groupware*, 1996, and further in view of Edupage Newsletter, Feb 4, 1997.



In reference to claim 6, Tenax Software discloses an applet for reading the text of a document one word at a time. See page 3 of Edupage Newsletter.

In reference to claim 15, Tenax discloses an applet for streaming the text of a webpages documents. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the applet with the system described jointly by W3C and GroupLab since the system represents a document model consisting of text and other components registered with a thumbnail.

Claim 16 further cites, ***“the step of altering the appearance of the thumbnail image to provide an indication of the information streamed to the word-at-a-time display.”*** GroupLab discloses a method in which the radar view is highlighted when a selected component is chosen. See page 2, figure 1. it would have been obvious to alter the appearance of the thumbnail image when displaying the word-at-a-time display since it indicates to the user the portion of the document being streamed.

Claim 17 further cites, ***“the step of streaming continued until a delimiter reflecting a unit of the document organization is reached.”*** GroupLab’s method of selecting text limits the presentation of components in the document. Thus it would have been obvious to stream only the components within a delimiter since the user would only want certain text to be displayed from the thumbnail image.

Claims 19-21 are rejected under the same rationale used in claims 15-17 above.

Claim 24 is rejected with the same rationale used in claims 8 and 14 above and further in view of Tenax Software. Tenax Software discloses an applet for reading the text of a document one word at a time. See page 3 of Edupage Newsletter. It would

have been obvious to one of ordinary skill in the art at the time of the invention to incorporate "word at a time" display to display data represented by the selected coordinates since it was well known at the time of the invention to use the applet to increase reading speeds. See page 3 of Edupage.

In reference to claim 25, W3C teaches a system in which the document is an HTML document.

In reference to claim 26, Tenax's discloses an applet which consists of a word-at-a-time display that streams text of a document. The streaming text is a way of attracting the visual attention of a user. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate "word at a time" display to display data represented by the selected coordinates since it was well known at the time of the invention to use the applet to increase reading speeds. See page 3 of Edupage.

In reference to claim 28, GroupLab discloses a method in which the radar view highlights the text that is being displayed on the word-at-a-time display. It would have been obvious to one of ordinary skill in the art at the time the invention was made to track the information being streamed in the thumbnail image since it is representative of the document.

Claim 29 further cites rejected under the same rationale used to reject claim 26 above.

6. Claims 27 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over W3C, "Document Object Model Level 1 Specification", 1998 in view of GroupLab of the University of Calgary, *Awareness Through Fisheye Views in Relaxed-WYSIWIS*

*Groupware*, 1996, and further in view of Edupage Newsletter, Feb 4, 1997 and "HTML tags at a glance".

It is notoriously well known in the art to flash a hyperlink. See "HTML tags at a glance", page 15. It would have been obvious to one of ordinary skill in the art at the time the invention was made to flash a hyperlink in a word-at-a-time display since the word-at-a-time display is representing a portion of the document.

Claim 30 further cites rejected under the same rationale used to reject claim 27 above.

7. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over W3C, "Document Object Model Level 1 Specification", 1998 in view of GroupLab of the University of Calgary, *Awareness Through Fisheye Views in Relaxed-WYSIWIS Groupware*, 1996, and further in view W3C's Scalable Vector Graphics Specification, Feb 11, 1999.

In reference to claims 4 and 5, W3C's Scalable Vector Graphics Specification discloses a language for describing graphics in XML. See page 3. Since XML is a structured document, it would have made sense to one of ordinary skill in the art at the time the invention was made to incorporate images and vector graphics in a system for registering a thumbnail with a document model since the technology for including images and vector graphics in structured documents already existed.

***Response to Arguments***

8. Applicant argues the motivation used to combine references in the office action. Specifically, Applicant argues that Examiner has not presented reasons why one of ordinary skill in the art would have made the alleged combination. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, W3C disclosure teaches that XML applications provide for the ability to link to a portion of a document from a document model. See abstract. Furthermore, it was well known in the art at the time of the invention to provide reduced images (thumbnails) from which a user could select coordinates linking to the larger document, as taught in GroupLab's thumbnail registration with a document. Both thumbnails and DOM provide users with the ability to link to a another document by providing a "mapping" to a data structure. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the features taught by GroupLab (i.e. thumbnail registration with a document structure) with W3C's teachings of providing a link between a document model and portion of a document since it provides the user with the ability to communicate with

another document. See pages 1-2 of W3C disclosure section "What is a Document Object Model" where a DOM.

Examiner's combination is based on the knowledge available to one of ordinary skill in the art at the time of the invention that a DOM provides a representation of the structure of a document and a reduced image (thumbnail) was often used to represent a document through the coordinate mapping of a document's structure to the thumbnail (see figure 1 of GroupLab reference). Thus given that these two features were well known in the art at the time as a means for linking to a document, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the two references as the mapping of a DOM or structure of an XML document would be the next logical step in representing the structure of a document in a reduced image format since it already took into account the structure of a document.

In view of the comments and rejections above, the Examiner maintains current position.

### ***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 2176


extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachna Singh whose telephone number is 703.305.1952. The examiner can normally be reached on M-F (8:30-5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 703.305.9792. The fax phone number for the organization where this application or proceeding is assigned is 703.872.9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.305.3900.

Rachna Singh  
December 9, 2003

  
JOSEPH H. FEILD  
PRIMARY EXAMINER